

*manipurensis*, remotely resembles *E. metallicus* described by Ahl (1923) from Siam but a detailed comparison with this species can be made only after the material of *E. metallicus* is available for study.

The description of the new species extends the range of distribution of the genus *Esomus* to Manipur. So far no species of *Esomus* has been reported from Manipur (Hora 1921, Menon 1950,

Menon 1952).

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*INDOGRAMMODES* GEN. NOV. FOR *POLYGRAMMODES PECTINICORNALIS*  
(GUENEE) (PYRAUSTINAE: PYRALIDAE: LEPIDOPTERA)<sup>1</sup>

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(With four text-figures)

The species *Polygrammodes pectinicornaliss* (Guenee) known from certain Indian localities is assigned to a new genus *Indogrammodes*. The generic characters of the new genus are defined.

## INTRODUCTION

During the course of studies on the taxonomy of Indian species of the subfamily Pyraustinae, four individuals of *Polygrammodes pectinicornalis* (Guenee) were collected from Jatinga (North Cachar Hills) and Kohima (Nagaland). From the study of relevant literature, as quoted under remarks, it is felt that the generic assignment of this species has remained indeter-

minate for the past many years. In order to standardize its status, a new genus *Indogrammodes* has been proposed and the generic characters have been defined.

Genus *Indogrammodes* gen. nov.

Type-species: *Botys pectinicornalis* Guenee

*Pectinicornalis* Guenee, Delt. & Pyral., p. 326 (1854) (*Botys*) (Zentr.-Indien). — Walker, Cat. Lep. Het. Brit. Mus., 18, p. 647 (1859) (*Botys*). — Lederer, Wien. Ent. Monatschr., 7, p. 391 (1963) (*Pachynoa*). — Walker, Cat. Lep. Het. Brit. Mus., 34, p. 1481 (1865) (*Pachynoa*). — Swinhoe, Proc. Zool. Soc. Lond., p. 875 (1885).

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(*Pachynoa*). — Swinhoe, Proc. Zool. Soc. Lond., p. 875 (1885). (*Pachynoa*). - Swinhoe & Cotes, Cat. Moths India, 5, p. 641 (1888) *Pachynoa*. — Hampson, Fauna Brit. India Moths, 4, p. 398 (1896) (*Pachynoa*), Proc. Zool. Soc. Lond., p. 197 (1899) (*Polygrammodes* [*Pachynoa*]). — Swinhoe, Cat. Lep. Het. Oxford Mus., 2, p. 524 (1900) (*Pitacanda*).

Labial palpus porrect and rostriform, exceeding head by the length of latter; second segment moderately scaled; third short, with a pointed tuft of scales in front. Maxillary palpus filiform. Antenna of male modified, flagellum with 10-12 basal segments dilated, then pectinated for most of its length and heavily ciliated at distal end; simple in female. Fore wing with discal cell exactly half the length of wing; vein R2 originating from slightly before anterior angle of cell, apposed to R<sub>3+4</sub>; stalk of R<sub>3+4</sub> as long as free parts of R<sub>3</sub> and R<sub>4</sub>; R<sub>5</sub> strongly curved and approximated to R<sub>3+4</sub>; M<sub>1</sub> from anterior angle of cell, thick at base and slightly curved; M<sub>2</sub>, M<sub>3</sub> and Cu<sub>1</sub> approximated basally; anal loop weak. Hind wing with discal cell less than half the length of wing; veins R<sub>s</sub> and M<sub>1</sub> shortly stalked; M<sub>2</sub>, M<sub>3</sub> and Cu<sub>1</sub> from posterior angle of cell, the former two approximated at base. Tibiae with outer spurs half the length of inner spurs.

*Male genitalia*: Uncus very long, curved, dilated at tip, the later setose with hair-like setae; gnathos absent; tuba analis half the length of uncus; subscaphium strongly sclerotized; tegumen broad; vinculum narrow, V-shaped; sacculus narrow. Valva short and broad; costa strongly inflated; sacculus well defined; harpe prominent, curved upwards and spine-like at tip. transtilla triangular; juxta hammer-like. Aedeagus with one of its walls sclerotized and the other membranous; vesica armed with a strongly sclerotized rod-shaped cornutus in middle.

*Female genitalia*: Corpus bursae bag-like, more or less oval, well sclerotized; signum wanting; ductus bursae long, narrow posteriorly and with a collar-like thickening at distal end; anterior apophyses long and narrow, dilated near bases; posterior apophyses short and thin; ovipositor

with densely setose lobes.

*Indogrammodes pectinicornalis* (Guenee) comb. nov.  
(Figs 1, 2, 3, 4)

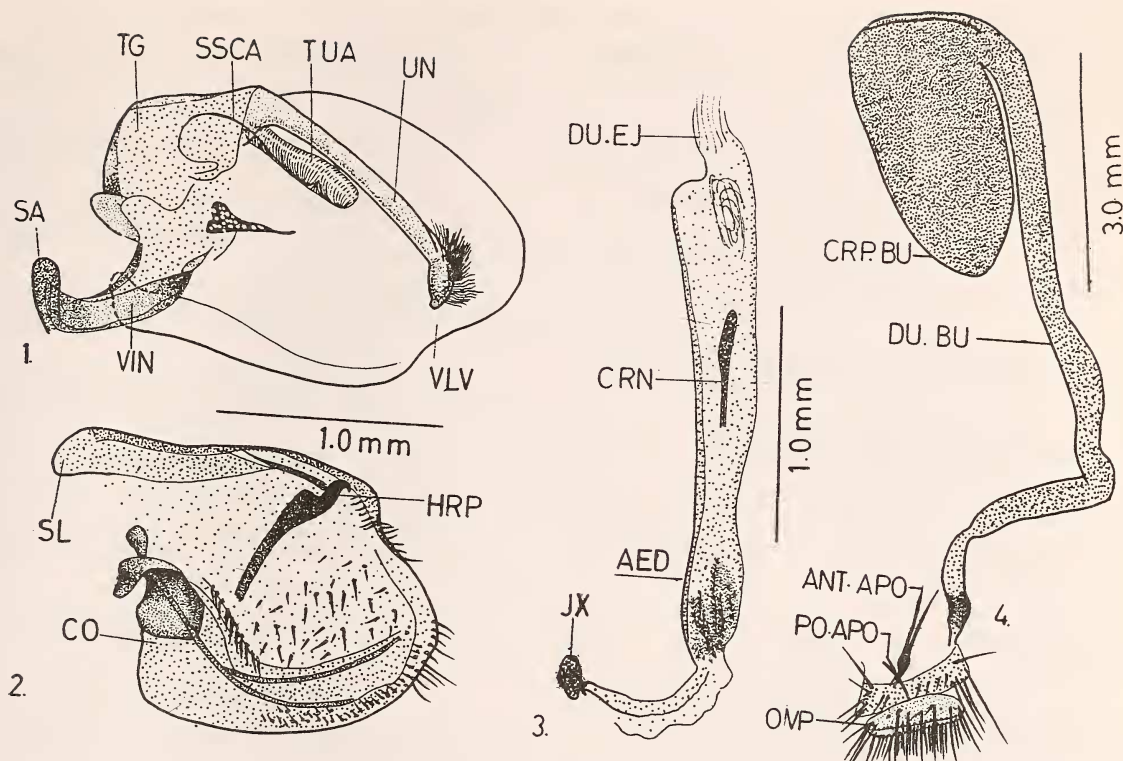
Guenee, 1854, Delt. & Pyral., 1854: 326 (*Botys*).

*Material Examined*: Assam: North Cachar hills, Jatinga, 3 Males, 12-4-1982. — Nagaland: Kohima, 1 Female, 28-9-1983.

*Distribution*: Bombay, Poona and Bengal.

This species was described for the first time under the genus *Botys* Latreille by Guenee (1854). The same arrangement was also followed by Walker (1859). Lederer (1863), however, proposed a new combination for this species and referred it under genus *Pachynoa* Lederer, an arrangement followed by Walker (1865), Swinhoe (1884), Swinhoe and Cotes (1889) and Hampson (1896). Hampson (1899) in a subsequent publication placed this species under the genus *Polygrammodes* Guenee and synonymised the genus *Pachynoa* along with two other genera *Aphytoceras* Meyrick and *Pitacanda* Moore. The use of the name *Polygrammodes* along with the synonymisation proposed by Hampson, did not result in any change in the catalogue by Klima (1939). Sevastopulo (1938) collected the species under reference from Calcutta and described it under genus *Pachynoa*, whereas Bradley and Shaffer (1969), Mandal and Bhattacharya (1980) thought it well to refer this species under *Polygrammodes*.

A critical study of literature reveals that the type-species of the genus *Pachynoa* (type-species: *thoosalis* Walker not *walkeri* as considered by Whalley 1962) and *Polygrammodes* (type-species: *runicalis* Guenee) are not congeneric (Munroe 1958b). Besides this generic name, the name *Aphytoceras* has already been revived and used in various publications by Munroe (1950, 1958a, 1958b, 1959, 1960, 1968, 1977), Munroe and Mutuura (1969) and Whalley (1962). However, the genus *Pitacanda* Moore, another synonym of *Polygrammodes* has been considered a synonym of *Pachynoa* by Munroe (1958b).



Figs. 1-4. *Indogrammodes pectinicornalis* (Guenee). 1-3: male genitalia; 4: female genitalia.

**Abbreviations:** AED: Aedeagus, ANT.APO: Anterior apophyses, CO: Costa, CRN: Cornuti, CRP.BU: Corpus bursae, DU.BU: Ductus bursae, HRP: Harpe, JX: Juxta, OVP: Ovipositor, PO.APO: Posterior apophyses, SA: Saccus, SL: Sacculus, SSCA: Subscaphium, TG: Tegumen, TU.A.: Tuba analis, UN: Uncus, VIN: Vinculum, VLB: Valva.

The species under reference fails to go under *Polygrammodes* and other allied genera, namely *Pseudopolygrammodes* Munroe and Mutuura, *Polygrammopsis* Munroe, *Pachynoa* Lederer and *Aphytoceras* Meyrick and hence it requires a new genus for its appropriate placement. Accordingly, a new genus *Indogrammodes* is being proposed for this particular species. The diagnosis of the new genus is given in detail. The present genus is close to *Pachynoa* but differs from it in the structure of labial palpi, antennae, tibial spurs, venation of forewing and valvae of male genitalia.

The reporting of the species *pectinicornalis* from northeast India is a new record.

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SACCOLOMA CHARTACEUM - A NEW SPECIES<sup>1</sup>

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Georg Friedrich Kaulfuss (1820) described the fern genus *Saccoloma* based on the species *elegans* which Chamisso collected from Sello, Brazil, on his voyage around the world. Later some pteridologists added more species to this

monotypic genus, while Copeland (1947) segregated this into *Saccoloma* and *Orthiopteris* and all species except *elegans* were included in the new genus *Orthiopteris*. Tryon (1962), based on morphological studies on species, referred to *Saccoloma* and *Orthiopteris*, concluded that the principal differences between the two genera, as pointed out by Copeland, are not significant enough for generic separation. He recognised eleven species (with some reservation) under the genus *Saccoloma*; Nair (1987) supported Tryon

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